



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of : **Confirmation No. 4446**
Kazuhiko TAKAHATA et al. : Attorney Docket No. 2000_0956A
Serial No.09/582,864 : Group Art Unit 2871
Filed July 6, 2000 : Examiner Richard H. Kim
LIQUID CRYSTAL DISPLAY DEVICE OF: Mail Stop Appeal Brief-Patents
TOUCH INPUT TYPE AND
ITS FABRICATING METHOD

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

Sir:

The following is Appellants' Brief, submitted under the provisions of 37 CFR 41.37. Pursuant to the provisions of 37 CFR 41.20, this Brief is submitted with a fee of \$500.00. Further, the Brief is accompanied by a Petition and fee for a one (1) month extension of time period set forth in 37 CFR 41.37(a)(1).

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REAL PARTY IN INTEREST

The real party in interest is NISSHA PRINTING CO., LTD., the assignee of record (Reel/Frame: 010971/0030).

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

STATUS OF CLAIMS

Claims 1-26 are cancelled. Claims 28-39 and 45-52 are withdrawn from consideration.

Claims 27 and 41-44 are being appealed. Claim 27 is an independent claim, and claims 41-44 are dependent claims. A complete copy of all the pending claims is provided in the attached Claims Appendix.

STATUS OF AMENDMENTS

An Amendment filed on December 13, 2004 was entered in response to an Office Action dated September 3, 2004. An Office Action dated February 25, 2005 was issued in response to the December 13, 2004 Amendment, and a final Office Action dated November 15, 2005 (hereinafter "final Office Action") was issued in response to a Request for Reconsideration filed on August 24, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

A description of the subject matter of the rejected independent claim 27 is presented below. All references to the specification refer to the original specification filed on July 6, 2000, as amended in part in the February 6, 2003 Amendment.

The subject matter of independent claim 27 is directed to a touch-input type liquid crystal display device (Figures 1, 6-7, 9-13 and 15-16, for example). The touch-input type liquid crystal display device comprises an upper polarizer 8, a lower polarizer 9, and a transparent touch panel 1. The transparent touch panel 1 is disposed between the upper polarizer 8 and the lower polarizer 9, and the transparent touch panel 1 comprises an upper optical phase difference film 4, a movable electrode portion 3, a stationary electrode portion 5 and a lower optical phase difference film 6. Furthermore, the touch-input type liquid crystal display device comprises a liquid crystal display device 2 (see line 23 on page 25 to line 9 on page 26 of the specification, and Figures 1, 6-7, 9-13 and 15-16, for example).

The present invention provides that a space 7 is interposed between the upper optical phase difference film 4 and the lower optical phase difference film 6, and the transparent touch panel 1 is disposed between the upper polarizer 8 and the liquid crystal display 2 (see Figure 1, for example).

Furthermore, the present invention provides that the liquid crystal display 2 is disposed between the transparent touch panel 1 and the lower polarizer 9, the movable electrode portion 3 is disposed on a lower surface of the upper optical phase difference film 4, and the stationary electrode portion 5 is disposed on an upper surface of the lower optical phase difference film 6 (see Figure 1, for example).

The upper optical phase difference film 4 is capable of providing a $1/4$ wavelength phase delay to light, incident thereon, having a center wavelength within a visible region (see lines 7-22 on page 27 and line 9 on page 46 to line 10 on page 47 of the specification). Similarly, the lower optical phase difference film 6 is capable of providing a $1/4$ wavelength phase delay to light, incident thereon, having a center wavelength within the visible region (see line 16 on page 49 to line 2 on page 50).

The present invention also provides that an angle formed by an optical axis of the upper optical phase difference film 4 and a polarization axis of the upper polarizer 8 is

about 45 ° (see line 2 on page 43 to line 4 on page 45), and an angle formed by an optical axis of the lower optical phase difference film and linearly polarized light to be outputted from the liquid crystal display is about 45 ° (see line 14 on page 50 to line 4 on page 51).

Furthermore, the present invention provides that an angle formed by the optical axis of the upper optical phase difference film 6 and the optical axis of the lower optical phase difference film 6 is about 90 ° (see page 51, lines 4-9), and an angle formed by the polarization axis of the upper polarizer 8 and linearly polarized light to be outputted from the liquid crystal display 2 is about 90 ° (see page 47, lines 1-10).

The touch-input type liquid crystal display device further comprises a transparent re-peel sheet adhesively bonding overall one of (1) a member on which the stationary electrode portion 5 has been directly formed and the liquid crystal display 2 or (2) all of the member, the liquid crystal display 2 and another member disposed between the member and the liquid crystal display 2 (see line 24 on page 52 to line 12 on page 53, and line 24 on page 54 to line 4 on page 55).

As discussed beginning at line 24 on page 54 of the specification, for example, the transparent re-peel sheet recited in claim 27 prevents peeling of a member during use after mounting but enables the member to be peeled off for maintenance or other occasions.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 27, 41-42 and 44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,020,945 to Sawai (hereinafter “Sawai”) in view of U.S. Patent No. 6,456,279 to Kubo et al. (hereinafter “Kubo”).

Claim 43 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawai in view of Kubo et al. and further in view of U.S. Patent No. 5,498,657 to Sugiyama et al. (hereinafter “Sugiyama”).

ARGUMENT

The Examiner suggests that it would have been obvious to combine the disclosure of Sawai with the disclosure of Kubo to result in the invention of claim 27. As correctly acknowledged by the Examiner in line 13 on page 3 of the final Office Action, Sawai clearly does not disclose, suggest or even contemplate a re-peel sheet.

The Examiner contends that a double-sided adhesive layer disclosed in Kubo constitutes the transparent re-peel sheet recited in claim 27, and opined that it would have been obvious to modify Sawai to include the double-sided adhesive layer disclosed in Kubo to result in the invention of claim 27.

For the reasons set forth below, it is submitted that the rejection proposed by the Examiner does not establish a *prima facie* case of obviousness. In particular, it is submitted that, despite the Examiner's assertions to the contrary, Sawai and Kubo, either individually or in combination, fail to disclose or suggest the transparent re-peel sheet recited in claim 27.

Discussion of Applied References

As correctly acknowledged by the Examiner in line 13 on page 3 of the Office Action, Sawai clearly fails to disclose, suggest or even contemplate the transparent re-peel sheet recited in claim 27.

In an attempt to teach this feature, the Examiner applied Kubo. Kubo discloses a liquid crystal display device which includes a second substrate 1A, a light guide 40B and an input device 40A that are fixed by a double-sided adhesive tape (see Column 14, lines 27-31 and Figure 7 for a pictorial representation). Kubo also discloses that by using this double-sided tape, it is possible to peel these members 1A, 40B and 40A of the liquid crystal display panel after bonding them together if they are mistakenly fixed (see Column 14, lines 31-35).

Regarding the double-sided adhesive tape, Kubo discloses that an unwoven fabric impregnated with a pressure sensitive adhesive is an exemplary type of adhesive envisioned in Kubo (see Column 14, lines 27-31).

Independent Claim 27

The touch-input type liquid crystal display of claim 27 is recited as comprising a transparent re-peel sheet which prevents peeling of a member during use after mounting but enables the member to be peeled off for maintenance or other occasions.

In particular, claim 27 recites the touch-input type liquid crystal display as comprising a transparent re-peel sheet adhesively bonding overall one of a member on which the stationary electrode portion has been directly formed and the liquid crystal display or all of the member, the liquid crystal display and an other member disposed between the member and the liquid crystal display.

In contrast to claim 27, Kubo discloses that an unwoven fabric impregnated with a pressure sensitive adhesive is an exemplary type of adhesive envisioned in Kubo. However, such a double-sided adhesive tape has no visibility and can be used only for adhering the peripheral edges of the liquid crystal display 1A and the touch panel members 40A, 40B with each other. That is, if such a double-sided adhesive tape having no visibility is used for adhering the whole surface of the touch panel 1A, then the touch panel will have no visibility and thus cannot be used as a touch panel.

Therefore, according to the disclosure of Kubo, Kubo cannot be interpreted as disclosing the transparent re-peel sheet of claim 27 which bonds overall one of a member on which the stationary electrode portion has been directly formed and the liquid crystal display or all of the member, the liquid crystal display and an other member disposed between the member and the liquid crystal display.

Presumably acknowledging the deficiency in the disclosure of Kubo, the Examiner contends that Kubo's disclosure of a non-transparent adhesive as an example of the adhesive does not preclude other types of adhesives from being used.

Nevertheless, the Examiner has not applied a reference to teach that a transparent adhesive can be used to bond overall the elements recited in claim 27, and therefore, the Examiner has not met his burden of establishing that the applied references would render the invention of claim 27 obvious.

Moreover, because Kubo envisions using a double-sided adhesive tape that has no visibility, which can only serve the function of adhering the peripheral edges of the liquid crystal display 1A and the touch panel members 40A, 40B with each other, it is submitted that one skilled in the art would not have been motivated to modify the double-sided adhesive tape to result in a transparent re-peel sheet which bonds overall one of a member on which the stationary electrode portion has been directly formed and the liquid crystal display or all of the member, the liquid crystal display and an other member disposed between the member and the liquid crystal display, as recited in claim 27.

In short, the Examiner has not met his burden of establishing a *prima facie* case of obviousness, because to establish *prima facie* obviousness of a claimed invention under 35 U.S.C. 103(a), all of the claim limitations must be disclosed or suggested by the applied prior art. See *CFMT, Inc. v. YieldUp Int'l Corp.*, 349 F.3d 1333, 1342, 68 U.S.P.Q.2D 1940, 1946-47 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974).

However, as demonstrated above, the disclosure of Kubo does not disclose or suggest the transparent re-peel sheet as recited in claim 27, and therefore, it is submitted that the Examiner has not established a *prima facie* case of obviousness of claim 27.

Moreover, the Examiner unreasonably contends that Kubo does not require the whole surface of the touch panel members 40A, 40B and the double-sided adhesive tape

to be adhered to each other in item 5 on pages 4-5 of the Office Action. The Examiner contends that Kubo does not require this construction and arrangement, because “claim 27 only recites that the transparent re-peel sheet adhesively bonds *overall* the members” (emphasis in original).

It is submitted that this position by the Examiner is unreasonable because the common, ordinary definition of the term “overall” is “all over,” “as a whole,” and “including everything” (see Merriam-Webster’s Collegiate Dictionary, 10th Edition, 2000). Accordingly, the term “overall” means over the whole extent.

Claim 27 recites the transparent re-peel sheet as adhesively bonding overall one of the member on which the stationary electrode portion has been directly formed and the liquid crystal display, or the member, the liquid crystal display and an other member disposed between the member and the liquid crystal display. The common, ordinary definition of the term “overall” means over the whole extent, as a whole, or including everything.

Consequently, claim 27 clearly defines that the transparent re-peel sheet requires the whole surface of the member on which the stationary electrode portion has been directly formed and the liquid crystal display to be adhered to each other, or the whole surface of the member, the liquid crystal display and an other member disposed between the member and the liquid crystal display to be adhered to each other.

Kubo, however, clearly does not disclose or suggest this feature of the present invention. Instead, based on what is actually disclosed in Kubo and not on what the Examiner contends is disclosed by impermissibly using hindsight to recreate the invention of claim 27, Kubo merely discloses a double-sided adhesive tape which has no visibility and which can only serve the function of adhering the peripheral edges of the liquid crystal display 1A and the touch panel members 40A, 40B with each other.

Accordingly, it is submitted that despite the Examiner’s unreasonably broad interpretation of Kubo, Kubo clearly does not disclose or suggest the transparent re-peel sheet which bonds overall the elements recited in claim 27.

Therefore, for the foregoing reasons, the Examiner has failed to establish *prima facie* obviousness of the invention of claim 27 since Sawai and Kubo, either individually

or in combination, clearly do not disclose or suggest each and every limitation of claim 27.

Dependent claim 43 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawai in view of Kubo and further in view of Sugiyama.

However, similar to Sawai and Kubo, Sugiyama also clearly fails to disclose, suggest or even contemplate the transparent re-peel sheet recited in claim 27.

Therefore, Sugiyama fails to cure the deficiencies of Sawai and Kubo for failing to disclose or suggest each and every limitation of claim 27.

Accordingly, no obvious combination of Sawai, Kubo and Sugiyama would result in the invention of claim 27 since Sawai, Kubo and Sugiyama, either individually or in combination, do not disclose or suggest each and every limitation of claim 27.

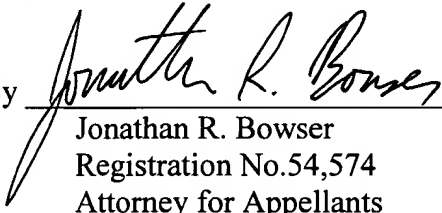
Therefore, for the foregoing reasons, it is submitted that claim 27, as well as claims 41-44 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

Conclusion

For the reasons set forth above, it is submitted that the combination of Sawai and Kubo or the combination of Sawai, Kubo and Sugiyama clearly do not meet each and every limitation of independent claim 27. Therefore, the Examiner's decision to finally reject claims 27 and 41-44 should be reversed.

Respectfully submitted,

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CLAIMS APPENDIX

27. A touch-input type liquid crystal display device comprising:

an upper polarizer;

a lower polarizer;

a transparent touch panel disposed between said upper polarizer and said lower polarizer, said transparent touch panel comprising an upper optical phase difference film, a movable electrode portion, a stationary electrode portion and a lower optical phase difference film; and

a liquid crystal display,

wherein a space is interposed between said upper optical phase difference film and said lower optical phase difference film,

wherein said transparent touch panel is disposed between said upper polarizer and said liquid crystal display,

wherein said liquid crystal display is disposed between said transparent touch panel and said lower polarizer,

wherein said upper optical phase difference film is capable of providing a $1/4$ wavelength phase delay to light, incident thereon, having a center wavelength within a visible region,

wherein said movable electrode portion is disposed on a lower surface of said upper optical phase difference film,

wherein said lower optical phase difference film is capable of providing a $1/4$ wavelength phase delay to light, incident thereon, having a center wavelength within the visible region,

wherein said stationary electrode portion is disposed on an upper surface of said lower optical phase difference film,

wherein an angle formed by an optical axis of said upper optical phase difference film and a polarization axis of said upper polarizer is about 45° ,

wherein an angle formed by an optical axis of said lower optical phase difference film and linearly polarized light to be outputted from said liquid crystal display is about 45° ,

wherein an angle formed by the optical axis of said upper optical phase difference film and the optical axis of said lower optical phase difference film is about 90° , and

wherein an angle formed by the polarization axis of said upper polarizer and linearly polarized light to be outputted from said liquid crystal display is about 90° ,

wherein said touch-input type liquid crystal display device further comprises a transparent re-peel sheet adhesively bonding overall one of a member on which said stationary electrode portion has been directly formed and said liquid crystal display or all of said member, said liquid crystal display and an other member disposed between said member and said liquid crystal display.

41. The touch-input type liquid crystal display device of claim 27, further comprising a transparent film low in moisture permeability and superior in dimensional stability laminated on an upper surface of said upper polarizer.

42. The touch-input type liquid crystal display device of claim 41, further comprising a low-reflection processed layer on an upper surface of said transparent film.

43. The touch-input type liquid crystal display device of claim 41, further comprising an antifouling processed layer on an upper surface of said transparent film.

44. The touch-input type liquid crystal display device of claim 41, further comprising a hard coat processed layer on an upper surface of said transparent film.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None